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"The Department of Homeland Security Second-Stage Review: The Role of the Chief Medical Officer"

Introduction

Mr. Chairman and distinguished Committee members, it is indeed my pleasure to testify before you today regarding the clear need for disease incident response training as it relates to the veterinary and agricultural communities. I come before you today as a private citizen with broad experience and knowledge of the threats against our agricultural sector and the current status of preparedness and response training efforts to mitigate these threats.

Background Information

This distinguished Committee has received previous testimony regarding emerging and re-emerging diseases that threaten our nation's agricultural sector. Current headlines are replete with information, warnings and concerns over "Avian Influenza." Yet, Avian Influenza is but one of multitude of diseases that our nation must be prepared to recognize, detect, respond to and, if necessary, recover from in the coming years. Avian Influenza is particularly troublesome among diseases due its unpredictability - its ability to "jump species" or exhibit zoonotic tendencies and due to the fact that there are multiple environmental or animal reservoirs that hinder our ability to eradicate it. Currently Avian Influenza is concentrated within the poultry and wild fowl populations in select areas/nations around the globe. Unfortunately, we have no assurance that the disease will remain in these areas. The combination of the unpredictable nature of the virus coupled with the pressures associated with globalization of the agricultural sector

and the speed-to-market required to compete on the international level have all strongly contributed to the conditions that will most likely result in the continued spread of this disease. Therefore, as a nation, we must be prepared to deal with this and other emerging disease threats. In order to reduce the likihood of the emergence of Avian Influenza in our country we are fortunate to have a group of dedicated professionals who work at our federal, state and local levels to protect us from and respond to these diseases:

Veterinarians.

As one measure of our veterinary population, let us examine the current status of our federal veterinary community. At present, we have fewer than 3,000 veterinarians spread amongst all agencies within the federal sector. Accross the nation we have roughly 100,000 veterinarians. By contrast, the state of New York has more than 70,000 MDs. The nation generates fewer than 4,000 new Veterinarians from our 28 Colleges of Veterinary Medicine a each year. These numbers are troubling, but they tell only part of the story.

At present, approximately 85% of all Veterinary graduates are electing to enter exclusively into small animal practice with only 15% electing to enter service within the food animal or mixed practice (i.e. treatment of small and large animals). This represents an abrupt change from 25 years ago when we witnessed approximately 50% of all Veterinary graduates electing to enter into food animal or mixed animal practice. The changes over the past 25 years reflect the economic changes within the animal care sector of our country. Companion animals represent the largest growth area within veterinary

medicine. As we move further away from individual farms and family agriculture we can expect to see these trends continue. This is troubling because food animal veterinarians have played a key role in securing the health of our nation's animal populations for the past 100 years.

As vexing as these data are, they are only an indicator of the challenges we will face in the future. Within the federal sector we are witnessing a precipitous decline in the numbers of federal veterinarians with direct experience in responding animal disease incidents. This is not a trivial matter. For example within USDA's Animal and Plant Health Inspection Service (APHIS), we find a federal veterinary population that has done a magnificent job in preserving the health of our pre-harvest animal population. However, we have fewer than 500 USDA-APHIS veterinarians who are in the field conducting important disease surveillance and response missions. This same group of federal veterinarians serves as the backbone of our animal disease incident response infrastructure - they led the 2002-2003 Exotic Newcastle Disease response in California, Nevada and Arizona. Currently, more than 50% of these veterinarians are scheduled to retire from federal service before 2007. These retirees will, in effect, remove hundreds of years of combined experience at the very moment that we are witnessing the appearance of new and re-emerging diseases which threaten our agricultural sector, our economy and perhaps our health. As these key personnel retire, their replacements will be required to master not only basic veterinary skills, but they will they will need to master those skills required to effectively respond to disease incidents. These emergency response skills may have to be learned largely through trial and error. The nation's 28 Colleges of

Veterinary Medicine offer few, if any, programs of instruction geared toward the role of veterinarians in disasters or emergency response. There is no standard for instructing veterinary students in the art and craft associated with the Incident Command System or in the proper selection of personnal protective equipment or how to proper don or doff this equipment. Further there is limited discussion of the relevant points of self, equipment or structural decontamination procedures and limited guidance on proper animal carcass disposal techniques that will be needed to reduce the spread of infectious agents. As important as our federal veterinary population is, we have little if any structured process in place at the present time for the recruitment and training of their replacements or any developed strategy to "collect" relevant skills and best practices to "pass" on to the next generation of federal veterinarians. Our current federal response strategy is predicated on working closely with our state and industrial partners to effect the eradication of a detected disease. This may become more problemmatic in the coming years unless we have an agressive and successful strategy to replace these individuals. If we are slow or ineffectual in our attempts to replace these losses, we can anticipate that the each state will bear a greater burden in the surveillance of and response to animal infectious diseases.

In the past, animal disease response was largely handled within the federal, state and local veterinary populations. However, Avian Influenza presents a complication to this traditional response strategy. Avian Influenza and other zoontic diseases, regardless of origin (natural, accidental or deliberate) will require a coordinated response by federal, state, and local veterinary AND non-veterinary (i.e. traditional 1st responders) response

personnel. Veterinary responders and traditional 1st responders have limited experience in working together - in many cases they do not know that the other exists. This limited interaction could pose significant problems if the H5N1 strain of Avian Influenza is detected in the US. The detection of this strain could cause significant disruption to our poultry production regions of the country and necessitate a close interaction between local and state law enforcement for quarantine enforcement and local fire departments to support individual and equipment decontamination needs. Further, an animal only Avian Influenza strain will prompt close involement and surveillance by local, state and national public health entitites - something that has not occured in the past nor has it been a standard component of public health or veterinary training. Ultimately any Avian Influenza disease response will require agricultural and traditional 1st responders to work together in ways that they have never done so in the past. Due to the rapidly diminishing numbers of experienced veterinarians at the federal level we must anticipate that state and local authorities must be prepared to address wide spread animal disease incidents largely on their own for an extended period of time.

Presented below are some of the several activities underway to help improve our readiness to combat agricultural disease incidents:

The first step in addressing any type of incident is achieved with greater awareness on the part of veterinarians and traditional responders alike of the various diseases, how they are manifested and what must be done to contain and result in its eradication. Toward this end, USDA-APHIS assembled and began distributing a CD entitled "The Threat to

American Agriculture - Livestock Disease Awareness" to the nation's 28 Colleges of Veterinary Medicine, all 56 field offices of the FBI, all state veterinarians and have made the CD available to traditional responders. Furthermore, USDA-APHIS is working closely with the Office for Domestic Preparedness in the development and validation of didatic program regarding agricultural foreign animal disease recognition that will capitalize upon the nation's community college network to effectively spread this information. USDA-APHIS in concert with the Department of Homeland Security has embarked on a cooperative program to develop and deliver a *beta version* of an emergency response training course (Individual performance - Defensive by the ODP guideline) designed for federal, state and local veterinary AND traditional 1st responders to train side-by-side to recognize and respond to agricultural disease incidents. This new course is entitled the Agricultural Emergency Response Training (AgERT) course and is currently undergoing pilot delivery at the Center for Domestic Preparedness located in Anniston, Alabama. The AgERT course teaches agricultural responders in the proper skills required to safely respond to "all hazards" incidents and provides traditional 1st responders with basic animal disease information (e.g. introduction to epidemiology priciples; overview of animal diseases; carcass disposal considerations, etc.) This course offers promise and path forward as to how the nation can train veterinarians and 1st responders to work together during a disease incident. Upon completing the pilot phase, discussions will begin as to how best to distribute this training across the nation to meet the broader training audience. Lastly, discussions are underway for the development of an advanced veterinary response training course that will better prepare federal, state and select local veterinarians to handle the difficult issues associated with leading animal

disease incident response.

Issues to Consider

The Committee is well aware of the looming potential for a pandemic version of Avian Influenza to strike in the United States. The Committee may not recognize that Avian Influenza is just one of multitude of emerging or re-emerging diseases which either may exclusively affect the agricultural sector or have the potential to impact both animal and human health. Disease threats, regardless of origin are a "new normalcy" that we must expect, plan for and react to. If we are fortunate enough to "dodge" a pandemic involving this particular strain of Avian Influenza, then we must be ready to deal the next strain or the next disease that will almost assuredly come during our lifetime. In short threats from new or re-emerging diseases will not fade away.

The Committee must understand that steps must be taken to assure Americans that we will have a sufficient number of properly trained Veterinarians at the federal, state and local levels to meet the response requirements associated with either an animal disease incident or a zoonotic disease incident. Programs need to be considered to reinforce and fund Veterinary Public Health Service-related positions within the Agricultural and Public Health sectors. Without such funding, the possibility of attracting our best and brightest into the service of their country is remote. These positions would assist states and resgions in the conduct of general and targeted disease surveillance efforts.

An issue of concern surrounds the ambiguity of the issue of Quarantine. The Committee understands that Agricultural/Animal Quarantine and Human Quarantine measures are neither identical nor are they imposed in similar fashion. Without a clear and concise understanding within the federal, state and local levels as to how these types of quarantine procedures should and must work together, we can be assured of general confusion and increased apprhension regarding these issues within the ranks of our fellow citizens. As such we must work together as a community to identify where and how these types of Quarantine procedures will interact and who is ultimately responsible for Quarantine during a zoonotic disease event.

Suggested Next Steps for Consideration

Listed below are a few suggested next steps for the Committee to consider when addressing the issues surrounding agricultural sector preparedness.

The Committee has been instrumental in the creation of new position within the Department of Homeland Security entitled the Chief Medical Officer (CMO). I applaud this action as an important first step. I urge the Committee to consider designating one of the CMO's permanent staff positions for a Assistant CMO - Veterinary Emergency Response (VER). This position would answer to the CMO on all issues pertaining to effective and proper preparedness, to include the measurement and validation of readiness as it relates to the directives contained in HSPD 9 (Food and Agricultural

Security). In this way, the nation will have a veterinarian "in the loop" when it comes to all matters pertaining to agricultural disease incident readiness and response within the Department of Homeland Security who will coordinate with USDA, CDC and any other relevant federal agencies.

Secondly, I urge the Committee to consider implementing a series of federal, state and local, as well as "joint" assessment exercises, of a similar nature to the "Crimson Sky" to clearly identify our gaps, voids and needs so that our limited funding and staff time can be put to best use. Further, the data arising from these exercises must be placed into actionable formats so that key issues are identified and coupled with a plan arising from the CMO's level to support preparedness strategies.

Thirdly, I urge the Committee to direct DHS, USDA and HHS/CDC to form a working group to examine the consequences of a pandemic influenza. There are a number of issues related to who is in charge at precisely what moment during a potential "species jumping" disease incident that we have yet to work through at the national level. This will be important to the security of our nation during any significant disease outbreak.

Fourthly, I urge the Committee to explore mechanisms by which we can train, certify and mobilize veterinarians on a national basis to react to disease incidents.

Currently within DHS we have the Veterinary Medical Assistance Teams (VMAT) which have performed well in the response to companion animal crises (e.g. Katrina) and we

have the Veterinary Services component of the USDA to deal with pre-harvest animal disease events. While these groups are important, we must consider methods to support their actions with greater numbers of federally trained veterinarians so that we create some type of veterinary surge capacity.

Lastly, I urge the Committee to consider its role in spelling out specific national mandates with regad to animal disease incidents. We live in a world at the federal, state and local levels with limited personnel resources and funding. However, we are entering a period in our nation's history in which we simply cannot afford to conduct our activities in the manner which we have grown accustomed. Preparation to effectively, swiftly and accurately respond to agricultural or zoonotic disease events is too important to allow it to be mixed with other "routine" agency activities. Emergency response must emerge as a "top of the list" issue for our agency and prrogram personnel and it cannot be allowed to viewed as an "optional issue" or as an "unfunded mandate." Disease surveillance, detection, response and recovery need to be at the top of our priorities to ensure that we have the staff and with the proper training to ensure the continuity of our agricultural sector.

Conclusions

Mr. Chairman, I want to take this opportunity to thank you and the members of the Committee for allowing me the opportunity to testify today. I hope that I have clearly conveyed that we have diseases that are looming and which could potentially alter our agricultural sector, our economy and even our health.

I would like to leave the Committee with two quotes to consider. The first quote is from Alex Thierman, Office of International Epizooties (i.e. the World Health Organization for Animals) who stated in 2001 that "Governments will no longer be judged on whether or not they have incursions of [new] diseases, rather they will be judged on how well they respond to them." The second quote was recently conveyed to me by a veterinarian who stated that "Avian Influenza has the potential to become the agricultural sector's Hurricane Katrina." It is my hope that we can avert disaster through our dedication to being prepared. Thank you.